Quality Improvement and Patient Safety Activities in Academic Departments of Medicine

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Academic departments of internal medicine have traditionally focused on their mission to provide clinical services, educate the next generation, and conduct research. As requirements to engage in formal quality improvement and patient safety (QI/PS) activities increase, academic departments provide an important setting to design, implement, and critically evaluate care delivery systems, as well as lead the science and application of QI/PS efforts nationally.1-7

Academic departments traditionally have played a passive role in QI/PS activities, which were predominantly carried out by the hospital.4,8 More often than not, governance structures for the medical school and the hospital are separated, with distinct cultures, finances, and reward systems. Quality and safety leaders often reside organizationally within the hospital’s quality departments, with little connection to the medical school or graduate medical education. This organizational dichotomy makes it challenging to engage department chairs, clinicians, and educators in QI/PS efforts.4,6-10 As the role of academic department in QI/PS activities evolves, the organizational structure around these activities (eg, where QI/PS leaders reside, who owns these activities, how they are funded and supported) will change.

Currently, little information is available on the organizational structure of QI/PS activities within academic departments. It is unclear the types of QI/PS activities in which departments are involved and how much ownership they assume. A recent review of the literature revealed only 2 articles that provide a comprehensive overview of how QI/PS activities are organized within a single academic department.4,7

To learn about the current organizational structure of QI/PS activities in academic departments in US medical schools, we surveyed chairs and QI/PS managers about the scope and content of QI/PS activities in their departments. The goal of this article is to describe the current state of involvement and ownership for QI/PS activities in academic departments, including how these activities are supported and funded.

MATERIALS AND METHODS

In collaboration with the Association of Professors of Medicine (APM), we developed a survey tool to understand the current organizational structure of QI/PS activities in academic departments. Survey development included comprehensive literature review, input from local experts and APM leadership, and informal beta-testing for language and ease of completion. The final survey included 83 items organized into 4 domains: demographic information, leadership and funding of QI/PS activities, content and structure of QI/PS activities, and strategies for inculcating quality improvement approaches in daily processes.
We administered the survey via a web-based tool; respondents were contacted via an APM members’ list-server. The electronic communication introduced the study goals and provided a link to the survey. We sent the survey to 125 chairs who were APM members in January 2011. The survey included a cover letter from the primary investigator (Dr Aronson), asking chairs to forward the survey to the person in charge of the department’s QI/PS program (“the QI/PS overseer”). Survey respondents were instructed to reply to the questions in the survey as they pertained to the main teaching hospital in their department, if the department was affiliated with more than 1 hospital. We sent 5 e-mail reminders to department chairs during the data-collection period (January to March 2010); participants had the ability to opt out of receiving these reminders.

RESULTS

Demographic Information
Sixty-three chairs or designees responded to the survey (50.4% response rate). The majority of respondents were chairs (34%) or vice/associate chairs (36%). Most departments in the survey were associated with a private not-for-profit hospital (52%) or a public hospital (36%) with a median of 550 licensed adult hospital beds and were located in an urban setting (82%). On average, 305 faculty had primary appointments in these departments (median, 240; range, 30-1806), and most of the internal medicine residency programs had 51 to 100 residents (37%) or 101 to 150 residents (27%).

Leadership and Funding of Quality Improvement and Patient Safety Activities
Survey respondents indicated that, on average, 6 physicians (median, 3; range, 1-37), 3 other clinicians (median, 2; range, 0-10), and 2 administrators (median, 1; range, 0-12) possessed formal responsibility, including allotted time or a formal title, in departmental QI/PS activities. Only 28% of respondents indicated that a department has external sources of funding for QI/PS activities. Of these departments, 50% indicated that they received federal research grants for QI/PS activities. Other funding sources included foundation grants (29%), industry (21%), and donations (21%).

Content and Structure of Quality Improvement and Patient Safety Activities
Most survey respondents reported departmental involvement in a large number of QI/PS activities in both the inpatient and outpatient settings (Table 1). However, despite a high degree of departmental involvement, the hospital or other departments typically own these activities (Figure 1). In addition to operational QI/PS activities, most departments also are involved or represented in formal QI/PS educational programs for undergraduate medical students and residents (Figure 2), as well as formal QI/PS educational programs for attending physicians (79%) and other clinicians and staff (72%). Fifty-seven percent of departments also provide faculty development opportunities on how to teach QI/PS.

Strategies for Inculcating Quality Approaches in Daily Processes
Strategies for inculcating quality approaches in daily processes vary significantly across academic departments. Some respondents are in the early stages of developing such strategies, whereas others outlined thoughtful and advanced strategies and programs designed to promote quality. Some departments rely on external reporting requirements or on the hospital to promote quality, and others describe more decentralized methods in instilling QI approaches at the division, unit, or clinic level. Although some departments described operational methods used for instilling QI approaches, such as using clinical dashboards or LEAN methodologies, others focused more on educational activities and fostering cultural change. When asked about providing performance-based financial rewards and penalties, 23% of survey respondents provided financial rewards, whereas only 5% implemented financial penalties.

DISCUSSION
A national survey of chairs and QI/PS overseers revealed that departments of internal medicine at US